

NAS5-97213

INDEX OF CLAUSES

SECTION B

- B.1 DELIVERABLE REQUIREMENTS AND DELIVERY SCHEDULE
- B.2 ESTIMATED COST INCREASES
- B.3 PAYMENT FOR OVERTIME PREMIUMS (52.222-2) (JUL 1990)
- B.4 ESTIMATED COST (18-52.216-81) (DEC 1988)
- B.5 CONTRACT FUNDING (18-52.232-81) (JUN 1990)

SECTION C

- C.1 SCOPE OF WORK (GSFC 52.210-91) (FEB 1991)
- C.2 REPORTS OF WORK

SECTION D

RESERVED

SECTION E

- E.1 ACCEPTANCE--MULTIPLE LOCATIONS (GSFC 52.246-93) (MAY 1989)
- E.2 INDEPENDENT RELIABILITY ASSESSMENT CONTRACTOR
- E.3 INSPECTION SYSTEM (SUBCONTRACTS)
- E.4 INSPECTION SYSTEM RECORDS (GSFC 52.246-102) (OCT 1988)
- E.5 QUALITY AND PERFORMANCE ASSURANCE BY THE GOVERNMENT AT SUBCONTRACTOR'S PLANT (GSFC 52.246-103) (OCT 1988)
- E.6 INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM) (52.246-9) (APR 1984)
- E.7 INSPECTION OF RESEARCH AND DEVELOPMENT--COST REIMBURSEMENT (52.246-8) (APR 1984)--ALTERNATE I (APR 1984)
- E.8 SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE GENERAL SERVICES ADMINISTRATION FOR AUDIT (52.247-67) (FEB 1995)

NAS5-97213

INDEX OF CLAUSES

SECTION F

- F.1 STOP-WORK ORDER (52.242-15) (AUG 1989)--ALTERNATE I (APR 1984)
- F.2 F.O.B. DESTINATION (52.247-34) (NOV 1991)

SECTION G

- G.1 VOUCHERS FOR REIMBURSEMENT OF COSTS (GSFC 52.232-99) (MAY 1989)
- G.2 FACILITIES TO BE ACQUIRED (GSFC 52.245-97) (FEB 1991)
- G.3 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (18-52.227-72) (APRIL 1984)
- G.4 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (18-52.242-73) (APRIL 1994)
- G.5 ACQUISITION OF CENTRALLY REPORTABLE EQUIPMENT
- G.6 FINANCIAL REPORTING OF GOVERNMENT-OWNED/CONTRACTOR-HELD PROPERTY (18-52.245-73) (JULY 1994)

SECTION H

- H.1 WORK BREAKDOWN STRUCTURE (GSFC 52.204-92) (OCT 1988)
- H.2 MONTHLY AND QUARTERLY FINANCIAL MANAGEMENT REPORTS (GSFC 52.204-95) (OCT 1988)
- H.3 METHOD OF CONTRACT PERFORMANCE
- H.4 INDIRECT COST RATES--PREDETERMINED (GSFC 52.216-102) (OCT 1988)
- H.5 SUBCONTRACTING PLAN AND REPORTS FOR SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS (GSFC 52.219-90) (JUL 1996)
- H.6 LAUNCH CHANGES
- H.7 RESTRICTIONS ON PRINTING AND DUPLICATING (18-52.208-81) (AUG 1993)
- H.8 SAFETY AND HEALTH (18-52.223-70) (FEB 1996)
- H.9 KEY PERSONNEL AND FACILITIES (18-52.235-71) (MAR 1989)
- H.10 GEOGRAPHIC PARTICIPATION IN THE AEROSPACE PROGRAM (18-52.244-70) (APR 1985)
- H.11 OPTION FOR PHASES C/D/E
- H.12 SPECIAL TERMINATION CONSIDERATIONS

NAS5-97213

INDEX OF CLAUSES

SECTION I

- I.1 LIST OF SECTION I CLAUSES INCORPORATED BY REFERENCE
- I.2 INTEGRITY OF UNIT PRICES (52.215-26) (FEB 1997)
- I.3 ORDER OF PRECEDENCE (52.215-33) (JAN 1986)
- I.4 RIGHTS TO PROPOSAL DATA (52.227-23) (TECHNICAL) (JUN 1987)
- I.5 LIMITATION ON WITHHOLDING OF PAYMENTS (52.232-9) (APR 1984)
- I.6 NOTIFICATION OF CHANGES (52.243-7) (APR 1984)
- I.7 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (52.244-6) (OCT 1995)
- I.8 CLAUSES INCORPORATED BY REFERENCE
- I.9 COMPUTER GENERATED FORMS (52.253-1) (JAN 1991)
- I.10 USE OF RURAL AREA SMALL BUSINESSES (18-52.219-74) (SEP 1990)
- I.11 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING REPORTING (18-52.219-75) (OCT 1995)
- I.12 NASA SMALL AND DISADVANTAGED BUSINESS GOAL (18-52.219-76) (JUL 1991)
- I.13 MINIMUM INSURANCE COVERAGE
- I.14 CENTER FOR AEROSPACE INFORMATION (18-52.235-70) (NOV 1992)
- I.15 TITLE TO EQUIPMENT (18-52.245-75) (MAR 1989)

SECTION J

- J.1 LIST OF ATTACHMENTS (GSFC 52.210-101) (OCT 1988)

B.1 DELIVERABLE REQUIREMENTS AND DELIVERY SCHEDULE

B.1.1 The Contractor shall perform and/or deliver the following:

B.1.1.1 Phase B

Delivery

Review

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

<u>Item</u>	<u>Description</u>	<u>Date</u>	<u>Level</u>
1.	Financial Management Reports	Monthly and Quarterly	I
2.	Science and Mission Requirements Document	9 months ADC	A
3.	New Technology Reports	As required under clause G.3	I
4.	Education and Public Outreach Plan	17 months ADC	R
5.	SB/SDB Subcontracting Reports (SF294 and 295)	As required under clause H.5 and I.12	I
6.	Monthly Progress Reports	As required under clause C.2	I
7.	Quarterly Progress Reports	As required under clause C.2	I
8.	Final Report for Phase B	As required under clause C.2	A

* ADC - After Date of Contract Award

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.1.2 Phase C/D/E (Option)

Review			
<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>Level</u>
1.	New Technology Reports	As required under clause G.3	I
2.	SB/SDB Subcontracting Reports (SF294 and 295)	As required under clause H.5 and I.12	I
3.	DOD Industrial Plant Equipment Requisition (DD1419)	As required under Clause G.5	I
4.	Report of Government Owned Property	As required under Clause G.6	I
5.	Financial Management Reports	Monthly/Quarterly	I
6.	Level 0 Experimental Data Records	Data Acquisition +30 days through completion of 5 year mission	A
7.	Level 1 (and above) Processed Data Records	Data Acquisition +6 months through completion of 5 year mission	A
8.	Monthly Progress Reports	As required under clause C.2	I

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.1.2 Phase C/D/E (Option) (cont'd)

<u>Review</u> <u>Item Description</u>		<u>Delivery Date Level</u>
9.	Quarterly Progress Reports	As required under I clause C.2
10.	Final Report for Phase C/D/E	As required A under clause C.2

Review Levels:

A - Deliverables in this category require written GSFC approval or acceptance. Receipt by the GSFC shall occur within the time specified in the contract. GSFC shall approve/disapprove within 30 days of receipt. Requirements for resubmission shall be specified in letter of disapproval. The Contractor may proceed after the 30 day period has elapsed without a response from GSFC.

R - Deliverables in this category must be received by the GSFC within the time period specified in the contract. They are subject to evaluation by the GSFC to determine Contractor effectiveness in meeting contract objectives. GSFC shall review and comment within 14 days of receipt. The Contractor will work with the ESSP Project to correct any deficiencies.

I - Deliverables in this category require receipt by GSFC within the time specified in the contract for the purpose of determining current program status and future planning requirements.

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.2 The Contractor shall recommend approval or disapproval of the following documentation and deliverables from the Jet Propulsion Laboratory for the GRACE Mission:

B.1.2.1 Phase B

<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>UTCSR Review</u>
1.	Level 1 Phase C/D/E Baseline Schedule	10 days after receipt	RA
2.	Project Requirements Review	10 days after receipt	RA
3.	Performance and Cost Measurement Metrics for Phase C/D/E	10 days after receipt	RA
4.	Monthly Progress Reports/Reviews	10 days after receipt	RA
5.	Phase B Project Implementation Plan	20 days after receipt	RA
6.	Quarterly Project Status Reviews at GSFC or Team Facilities	10 days after receipt	RA
7.	Mission Design and Cost Review Data Package	10 days after receipt	RA
8.	Network Schedule (part of Project Implementation Plan)	10 days after receipt	RA
9.	Phase C/D/E Project Implementation Plan	30 days after receipt	RA
10.	Mission Design and Cost Review	10 days after receipt	RA
11.	Mission Operations Concept	30 days after receipt	RA

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.2.1 Phase B (Cont'd.)

<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>UTCSR Review</u>
12.	Ground System Development Plan	30 days after receipt	RA
13.	Mission Software Development Plan	30 days after receipt	RA
14.	Risk Mitigation Plan (part of Project Implementation Plan)	10 days after receipt	RA
15.	Descope Plan (part of Project Implementation Plan)	10 days after receipt	RA
16.	Mission Development Plan (part of Project Implementation Plan)	10 days after receipt	RA
17.	Mission Assurance Plan	10 days after receipt	RA
18.	Safety Plan	10 days after receipt	RA
19.	Response to MDCR Action Items	10 days after receipt	RA

B.1.2.2 Phase C/D/E

<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>UTSR Review</u>
1.	Spacecraft to Instrument Interface Control Document	10 days after receipt	RA
2.	Spacecraft to Launch Vehicle Interface Control Document	10 days after receipt	RA

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.2.2 Phase C/D/E (Cont'd)

<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>UTSR Review</u>
3.	Space Segment to Ground Segment Interface Control Document	10 days after receipt	RA
4.	Flight Segment Verification Plan	10 days after receipt	RA
5.	Ground Segment Verification Plan	10 days after receipt	RA
6.	Preliminary Safety Package	10 days after receipt	RA
7.	Orbital Lifetime Analysis Report	10 days after receipt	RA
8.	Critical Design Review	10 days after receipt	RA
9.	Printed Wiring Board Coupons	10 days after receipt	RA
10.	Mission Hardware photographs/videos	10 days after receipt	RA
11.	Test Readiness Review	10 days after receipt	RA
12.	Pre-Ship Review	10 days after receipt	RA
13.	Final Safety Data Package	10 days after receipt	RA
14.	Launch Site Activities and Test Plan	10 days after receipt	RA

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.1.2.2 Phase C/D/E (Cont'd)

<u>Item</u>	<u>Description</u>	<u>Delivery Date</u>	<u>UTSR Review</u>
15.	Launch Readiness Review	10 days after receipt	RA
16.	Monthly Progress Status Reports/Reviews	10 days after receipt	RA
17.	Quarterly Project Status Reports/Reviews	10 days after receipt	RA

PSR - Pre-Ship Review

CDR - Critical Design Review

Types of Recommendations:

RA - Deliverables in this category mean that this Contractor recommends in writing approval or disapproval to the GSFC Mission Manager for deliverables under other contractual arrangements and deliverables.

(End of clause)

B.2 ESTIMATED COST INCREASES

(a) The requirements of this clause are in conjunction with the Limitation of Cost clause or the Limitation of Funds clause in Section I of this contract.

(b) The Contractor shall notify the Contracting Officer in writing whenever the Contractor has reason to believe that the total cost for performance of this contract, exclusive of any fee, will be either greater or substantially less than the total estimated cost stated in this contract. Notification shall not be delayed pending preparation of a proposal.

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.2 ESTIMATED COST INCREASES (Cont'd)

(c) Under normal circumstances, projected cost increases shall be offset by descoping of the mission. However, if a cost increase can be justified, a proposal is required to support a request for an increase in the estimated cost of the contract. The proposal should be submitted as soon as possible after the above notification but, for proposals of less than \$1,000,000, no later than 90 days before the incurred costs are expected to exceed the estimated cost and no later than 155 days for proposals of \$1,000,000 or more. These proposal times are intended to allow adequate time for the Government to evaluate the proposal and establish any increase in estimated cost with the Contractor.

(d) The proposal shall provide elements of cost with supporting detail for estimated direct labor hours, direct and indirect rates, materials and subcontracts, and other elements to support the revised estimate to complete the contract. Supporting explanation for the increases and projections, sufficient to allow the Government to understand the reasons for the increased estimated cost, shall be provided. The proposal shall comply with the requirements of FAR 15.804, "Cost or pricing data", and any other cost data and format requirements that may be required by the Contracting Officer.

(End of text)

B.3 PAYMENT FOR OVERTIME PREMIUMS (52.222-2) (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed\$0..... or the overtime premium is paid for work--

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature:

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.3 PAYMENT FOR OVERTIME PREMIUMS (52.222-2) (JUL 1990) (Cont'd)

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting:

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances' and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise, or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit: e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

(End of clause)

NAS5-97213

SECTION B SUPPLIES OR SERVICES AND PRICES/COST

B.4 ESTIMATED COST (18-52.216-81) (DEC 1988)

The total estimated cost for complete performance of this contract is \$ for Phase B and \$ for Phase C/D/E option. See FAR clause 52.216-11, Cost Contract--No Fee, of this contract.

(End of clause)

B.5 CONTRACT FUNDING (18-52.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$. This allotment is for costs and covers the period of performance from effective date of the Phase B Contract through .

(End of clause)

SECTION C DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 SCOPE OF WORK

In the event of a direct conflict, the Mission Design Requirements Agreement (MDRA) will, unless otherwise stated, take precedence in defining the scope of work.

The Contractor shall provide the personnel, materials, and facilities except as otherwise provided in this contract necessary to define the flight and ground segment hardware and software, documentation, and detailed plans and processes necessary to implement the Gravity Recovery and Climate Experiment (GRACE) Mission and to furnish the items specified in Section B of this contract in accordance with the following:

Phase B: Attachment A - Statement of Work for Phase B, and Attachment D - Mission Definition and Requirements Agreement (MDRA).

Phase C/D/E: Attachment B - Statement of Work for Phase C/D/E, Attachment D - Mission Definition and Requirements Agreement (MDRA), and Attachment E - Science and Mission Requirements Document(s).
(End of clause)

SECTION C DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.2 REPORTS OF WORK

(a) Progress reports. For the first year after contract award, the Contractor shall conduct quarterly progress reviews of all work accomplished during each quarter of contract performance.

From the second year after contract award through the exercise of the Phase C/D/E option, if ever, the Contractor shall submit and present monthly progress reports of all work accomplished during each month of contract performance. Reports shall be in narrative and/or presentation format and brief and informal in content. They shall include a quantitative description of overall progress, an indication of any current problems which may impede performance, a status of all mission critical resources, including current margin or reserves, and proposed corrective action, and a discussion of the work to be performed during the next monthly reporting period.

(b) Final reports. The Contractor shall submit a final report for Phase B and for Phase C/D/E. Each final report will document and summarize the results of the entire contract work, including recommendations, conclusions and lessons learned based on the experience and results obtained. For Phase B, the Final Report will consist of the Mission Design Review (MDR) Package, the responses to MDR actions, and the System Trades and Analysis Reports as appropriate. For Phase C/D/E, the Final Report will summarize the results of all work performed under the contract including recommendations, conclusions and lessons learned, based upon the experience and results obtained in performing this effort. All scientific papers, articles and other publications written during the course of the contract period pertaining to this mission shall be included as part of the Final Report.

(c) Report Documentation Page. The Contractor shall include a completed Report Documentation Page (NASA Form 1626) as the final page of each submitted report. The copies provided to the Center for Aerospace Information shall have a completed Standard Form 298, Report Documentation Page, as the last page. Refer to NASA FAR Supplement clause 18-52.235-70, "Center for AeroSpace Information" of this contract.

NAS5-97213

SECTION C DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.2 REPORTS OF WORK (Cont'd)

(d) Submission. The Contractor shall submit the reports required by this clause as follows:

[M=Monthly, Q=Quarterly, F=Final]

<u>Copies</u>	<u>Report Type</u>	<u>Addressee</u>	<u>Code</u>
1	M,F, Q	Contracting Officer	214.3
1	M,F, Q	Contracting Officer's Technical Representative (COTR)	408
1	F	Publications and Graphics Section	253.1
2	M,F, Q	Center for AeroSpace Information Attn: Accessioning Department 800 Elkridge Landing Road Linthicum Heights, MD 21090-2934	
1	M,F, Q	ESSP Project Library	408

(e) Monthly reports shall be submitted by the 15th day of the month following the month being reported. If the contract is awarded beyond the middle of a month, the first monthly report shall cover the period from award until the end of the following month. Quarterly reports shall be submitted by the 15th day of the quarter following the quarter being reported. If the contract is awarded beyond the middle of a quarter, the first quarterly report shall cover the period from award until the end of the following quarter. Any such quarterly report satisfies the requirement for that particular month's monthly report. The final report shall be submitted within 30 days after the completion of the effort under the contract.

(End of clause)

(RESERVED)

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.1 ACCEPTANCE--MULTIPLE LOCATIONS (GSFC 52.246-93) (MAY 1989)

The Contracting Officer or authorized representative will accomplish acceptance at the following location(s):

<u>Items</u>	<u>Location</u>	<u>Authorized Representative</u>
B.1.1.1		
Phase B		
1-8	NASA/Goddard Space Flight Center Code 408 Greenbelt, MD 20771	COTR
1-8	NASA/Goddard Space Flight Center Code 214.3 Greenbelt, MD 20771	CO
B.1.1.2		
Phase C/D/E		
1-10	NASA/Goddard Space Flight Center Code 408 Greenbelt, MD 20771	COTR
1-10	NASA/Goddard Space Flight Center Code 214.3 Greenbelt, MD 20771	CO
B.1.2.1		
Phase B		
1-19	NASA/Goddard Space Flight Center Code 408 Greenbelt, MD 20771	COTR
1-19	NASA/Goddard Space Flight Center Code 214.3 Greenbelt, MD 20771	CO

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.1 ACCEPTANCE--MULTIPLE LOCATIONS (GSFC 52.246-93) (MAY 1989)
(Cont'd)

<u>Items</u>	<u>Location</u>	<u>Authorized Representative</u>
B.1.2.2		
Phase C/D/E		
1-17	NASA/Goddard Space Flight Center Code 408 Greenbelt, MD 20771	COTR
1-17	NASA/Goddard Space Flight Center Code 214.3 Greenbelt, MD 20771	CO

The Contracting Officer reserves the right to designate other Government agents as authorized representatives. The Contractor will be notified by a written notice or by a copy of the delegation letter if other agents are authorized.

(End of clause)

SECTION E INSPECTION AND ACCEPTANCE

E.2 INDEPENDENT RELIABILITY ASSESSMENT CONTRACTOR

The Government may contract with an independent reliability assessment contractor for effort related to the efforts under this contract. It is understood and agreed that personnel of any such designated contractor shall have free access to work areas of both the prime Contractor and subcontractors in which the work required by this contract is being performed for the purpose of making assessments of the effort being accomplished.

(End of provision)

E.3 INSPECTION SYSTEM (SUBCONTRACTS)

In performance of this contract, the Contractor shall invoke inspection system requirements on subcontractors and suppliers to ensure the required quality of supplies or services. Monitoring of the Contractor's system for inspecting subcontractors will be accomplished through the efforts of NASA/GSFC personnel.

(End of provision)

E.4 INSPECTION SYSTEM RECORDS (GSFC 52.246-102) (OCT 1988)

The Contractor shall maintain records evidencing inspections in accordance with the Inspection clause of this contract for five (5) years after delivery of all items and/or completion of all services called for by the contract.

(End of clause)

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

**E.5 QUALITY AND PERFORMANCE ASSURANCE BY THE GOVERNMENT AT
SUBCONTRACTOR'S PLANT (GSFC 52.246-103) (OCT 1988)**

The Government may perform quality and performance assurance functions at the subcontractor's plants.

The Contractor shall provide for timely Government access to the subcontractor's facility. Government performance of quality and performance assurance functions at subcontractor's facilities shall not relieve the Contractor of any of its responsibilities under the contract.

(End of clause)

**E.6 INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM)
(52.246-9) (APR 1984)**

The Government has the right to inspect and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

(End of clause)

**E.7 INSPECTION OF RESEARCH AND DEVELOPMENT--COST REIMBURSEMENT
(52.246-8) (APR 1984)--ALTERNATE I (APR 1984) - Applicable
to all hardware subcontractors**

(a) Definitions. "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of--

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.7 INSPECTION OF RESEARCH AND DEVELOPMENT--COST REIMBURSEMENT
(52.246-8) (APR 1984)--ALTERNATE I (APR 1984) - Applicable
to all hardware subcontractors (cont'd)

(1) All or substantially all of the Contractor's business;

(2) All or substantially all of the Contractor's operation at any one plant or separate location at which the contract is being performed; or

(3) A separate and complete major industrial operation connected with performing this contract.

"Work," as used in this clause, includes data when the contract does not include the Warranty of Data clause.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the work under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all work called for by the contract, to the extent practicable at all places and times, including the period of performance, and in any event before acceptance. The Government may also inspect the plant or plants of the Contractor or its subcontractors engaged in the contract performance. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs any inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.7 INSPECTION OF RESEARCH AND DEVELOPMENT--COST REIMBURSEMENT
(52.246-8) (APR 1984)--ALTERNATE I (APR 1984) - Applicable
to all hardware subcontractors (Cont'd)

(e) Unless otherwise provided in the contract, the Government shall accept work as promptly as practicable after delivery, and work shall be deemed accepted 90 days after delivery, unless accepted earlier.

(f) At any time during contract performance, but not later than 6 months (or such other time as may be specified in the contract) after acceptance of all of the end items (other than designs, drawings, or reports) to be delivered under the contract, the Government may require the Contractor to correct or replace work not meeting contract requirements. Time devoted to the correction or replacement of such work shall not be included in the computation of the above time period. Except as otherwise provided in paragraph (g) below, the allowability of the cost of any such replacement or correction shall be determined as specified in the Allowable Cost and Payment clause. The Contractor shall not tender for acceptance corrected work without disclosing the former requirement for correction, and, when required, shall disclose the corrective action taken.

(g) If the Contractor fails to proceed with reasonable promptness to perform required replacement or correction, the Government may (1) by contract or otherwise, perform the replacement or correction and charge to the Contractor any increased cost, (2) require delivery of any undelivered articles, or (3) terminate the contract for default. Failure to agree on the amount of increased cost to be charged to the Contractor shall be a dispute.

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.7 INSPECTION OF RESEARCH AND DEVELOPMENT--COST REIMBURSEMENT
(52.246-8) (APR 1984)--ALTERNATE I (APR 1984) - Applicable
to all hardware subcontractors (cont'd)

(h) Notwithstanding paragraphs (f) and (g) above, the Government may at any time require the Contractor to remedy by correction or replacement, without cost to the Government, any failure by the Contractor to comply with the requirements of this contract, if the failure is due to (1) fraud, lack of good faith, or willful misconduct on the part of the Contractor's managerial personnel or (2) the conduct of one or more of the Contractor's employees selected or retained by the Contractor after any of the Contractor's managerial personnel has reasonable grounds to believe that the employee is habitually careless or unqualified.

(i) This clause shall apply in the same manner to a corrected or replacement end item or components as to work originally delivered.

(j) The Contractor has no obligation or liability under the contract to correct or replace articles not meeting contract requirements at time of delivery, except as provided in this clause or as may otherwise be specified in the contract.

(k) Unless otherwise provided in the contract, the Contractor's obligations to correct or replace Government- furnished property shall be governed by the clause pertaining to Government property.

(End of clause)

E.8 SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE GENERAL SERVICES ADMINISTRATION FOR AUDIT (52.247-67) (FEB 1995)

(a) (1) In accordance with paragraph (a)(2) of this clause, the Contractor shall submit to the General Services Administration (GSA) for audit, legible copies of all paid freight bills/invoices, commercial bills of lading (CBL's), passenger coupons, and other

SECTION E INSPECTION AND ACCEPTANCE

E.8 SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE GENERAL SERVICES ADMINISTRATION FOR AUDIT (52.247-67) (FEB 1995)
(cont'd)

supporting documents for transportation services on which the United States will assume freight charges that were paid (i) by the Contractor under a cost-reimbursement contract, and (ii) by a first-tier subcontractor under a cost-reimbursement subcontract thereunder.

(2) Cost-reimbursement Contractors shall only submit for audit those CBL's with freight shipment charges exceeding \$50.00. Bills under \$50.00 shall be retained on-site by the Contractor and made available for GSA on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(b) The Contractor shall forward copies of paid freight bills/invoices, CBL's, passenger coupons, and supporting documents as soon as possible following the end of the month, in one package to the General Services Administration, ATTN: FWATS, 18th & F Streets, NW, Washington, DC 20405. The Contractor shall include the paid freight bills/invoices, CBL's, passenger coupons, and supporting documents for first-tier subcontractors under a cost-reimbursement contract. If the inclusion of the paid freight bills/invoices, CBL's, passenger coupons, and supporting documents for any subcontractor in the shipment is not practicable, the documents may be forwarded to GSA in a separate package.

(c) Any original transportation bills or other documents requested by GSA shall be forwarded promptly by the Contractor to GSA. The Contractor shall ensure that the name of the contracting agency is stamped or written on the face of the bill before sending it to GSA.

(d) A statement prepared in duplicate by the Contractor shall accompany each shipment of transportation documents. GSA will acknowledge receipt of the shipment by signing and returning the copy of the statement. The statement shall show--

NAS5-97213

SECTION E INSPECTION AND ACCEPTANCE

E.8 SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE GENERAL SERVICES ADMINISTRATION FOR AUDIT (52.247-67) (FEB 1995)
(cont'd)

- (1) The name and address of the Contractor;
- (2) The contract number including any alpha-numeric prefix identifying the contracting office;
- (3) The name and address of the contracting office;
- (4) The total number of bills submitted with the statement; and
- (5) A listing of the respective amounts paid or, in lieu of such listing, an adding machine tape of the amounts paid showing the Contractor's voucher or check numbers.

(End of clause)

SECTION F DELIVERIES AND PERFORMANCE

F.1 STOP-WORK ORDER (52.242-15) (AUG 1989)--ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected.

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

NAS5-97213

SECTION F DELIVERIES AND PERFORMANCE

F.1 STOP-WORK ORDER (52.242-15) (AUG 1989)--ALTERNATE I (APR 1984)
(cont'd)

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(End of clause)

F.2 F.O.B. DESTINATION (52.247-34) (NOV 1991)

(a) The term "f.o.b. destination," as used in this clause, means--

(1) Free of expense to the Government, on board the carrier's conveyance, at a specified delivery point where the consignee's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located, and

(2) Supplies shall be delivered to the destination consignee's wharf (if destination is a port city and supplies are for export), warehouse unloading platform, or receiving dock, at the expense of the Contractor. The Government shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery (or "constructive placement" as defined in carrier tariffs) of the supplies to the destination, unless such charges are caused by an act or order of the Government acting in its contractual capacity. If rail carrier is used, supplies shall be delivered to the specified unloading platform of the consignee. If motor carrier (including "piggyback") is used, supplies shall be delivered to truck tailgate at the unloading platform of the consignee, except when the supplies delivered meet the requirements of Item 568 of the National Motor Freight

SECTION F DELIVERIES AND PERFORMANCE

F.2 F.O.B. DESTINATION (52.247-34) (NOV 1991) (Cont'd)

Classification for "heavy or bulky freight". When supplies meeting the requirements of the referenced Item 568 are delivered, unloading (including movement to the tailgate) shall be performed by the consignee, with assistance from the truck driver, if requested. If the Contractor uses rail carrier or freight forwarder for less than carload shipments, the Contractor shall ensure that the carrier will furnish tailgate delivery, when required, if transfer to truck is required to complete delivery to consignee.

(b) The Contractor shall--

(1) Pack and mark the shipment to comply with contract specifications; or

(ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;

(2) Prepare and distribute commercial bills of lading;

(3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;

(4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;

(5) Furnish a delivery schedule and designate the mode of delivering carrier; and

(6) Pay and bear all charges to the specified point of delivery.

(End of clause)

NAS5-97213

SECTION G CONTRACT ADMINISTRATION DATA

G.1 VOUCHERS FOR REIMBURSEMENT OF COSTS (GSFC 52.232-99) (MAY 1989)

In accordance with the Allowable Cost and Payment clause of this contract, the contractor shall submit vouchers and any required supporting statements or certificates, properly identifiable with the contract number, to the delegated cognizant audit agency by use of an SF 1034 and SF 1035 or equivalent Contractor's attachment, and SF 1034A and SF 1035A or equivalent Contractor's attachment. The cognizant audit agency is the "Designated Billing Office" for Prompt Payment clause purposes.

Copies of the SF 1034a, shall be marked in the memorandum block, with the name and address of the following:

GSFC Accounts Payable Section, Code 151.3A (Copy 1)
GSFC Contracting Officer, Code 214.3 (Copy 2)
Contractor (Copy 3)
Contract Administration Office (Copy 4)

Each voucher for reimbursement of costs shall include sufficient detail to identify costs properly chargeable to the contract, such as material, direct labor, direct charges (e.g., facilities, special test equipment, etc.) and overhead. If appropriate, claimed costs may be supported by reference to the concurrent Financial Management Report, NASA Form 533, required by this contract.

For the purposes of the Prompt Payment clause of this contract as it relates only to the final cost voucher, acceptance occurs on the date the final voucher is signed by the Closing Contracting Officer. This is considered the date of final settlement.

(End of clause)

G.2 FACILITIES TO BE ACQUIRED (GSFC 52.245-97) (FEB 1991)

In accordance with FAR clause 52.244-2, "Subcontracts Under Cost-Reimbursement and Letter Contracts--Alternate I" of this contract, the Contractor shall obtain the approval of the Contracting Officer

NAS5-97213

SECTION G CONTRACT ADMINISTRATION DATA

prior to the acquisition of any "facilities" as defined in the Federal Acquisition Regulation (FAR) 45.301. The policy on providing facilities to contractors is contained in FAR 45.302-1 and NASA FAR Supplement 18-45.302-1.

(End of clause)

G.3 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (18-52.227-72) (APRIL 1984)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights -- Retention by the Contractor (Short Form)", whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

<u>Title</u>	<u>Office Code</u>	<u>Address (including zip code)</u>
New Technology Representative	702	Goddard Space Flight Center Greenbelt, MD 20771
Patent Representative	204	Goddard Space Flight Center Greenbelt, MD 20771

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquiries or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights --Retention by the Contractor (Short Form)" clause, unless otherwise authorized or

NAS5-97213

SECTION G CONTRACT ADMINISTRATION DATA

**G.3 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT
REPRESENTATIVE (18-52.227-72) (APRIL 1984) (Cont'd)**

directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

**G.4 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (18-52.242-73)
(APR 1994)**

(a) The Contractor shall submit NASA Financial Management Reports on NASA Form 533 in accordance with the instructions in NASA Contractor Financial Management Reporting (NPG 9501.2C) and on the reverse side of the forms, as supplemented in the Schedule of this contract. The detailed reporting categories to be used, which shall be correlated with technical and schedule reporting, shall be set forth in the contract Schedule. Contractor implementation of reporting requirements under this clause shall include NASA approval of the definitions of the content of each reporting category, and will give due regard to the Contractor's established financial management information system.

(b) Lower level detail used by the Contractor for its own management purposes to validate information reported to NASA shall be compatible with NASA requirements.

(c) Reports shall be submitted in the number of copies, at the time, and in the manner set forth in the contract Schedule or as designated in writing by the Contracting Officer. Upon completion and acceptance by NASA of all contract Schedule line items, the Contracting Officer may direct the Contractor to submit Form 533 reports on a quarterly basis only.

NAS5-97213

SECTION G CONTRACT ADMINISTRATION DATA

**G.4 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (18-52.242-73)
(APR 1994) (Cont'd)**

(d) The Contractor shall require first-tier subcontracts that meet the established reporting criteria set forth in 18-42.7201(b)(1) to report cost data using the NASA Form 533 reports. Copies of subcontractor Form 533 reports shall be submitted along with the Contractor's Form 533 reports in the manner set forth in the contract Schedule or as designated in writing by the Contracting Officer.

(e) If, during the performance of this contract, NASA requires a change in the information or reporting requirements specified in the Schedule, or as provided for in (a) or (c) above, the Contracting Officer shall effect that change in accordance with the Changes clause of this contract.

(End of clause)

G.5 ACQUISITION OF CENTRALLY REPORTABLE EQUIPMENT

(a) "Centrally reportable equipment," as used in this clause, means that plant equipment, special test equipment (including components), special tooling, and non-flight space property (including ground support equipment) (1) generally commercially available and used either as a separate item or as a component of a system, (2) having an acquisition cost of \$1,000 or more (unless a lower threshold is specified elsewhere in this contract), and (3) is identifiable by a manufacturer and model number.

(1) Before the acquiring (including acquiring by fabricating) any item of centrally reportable equipment under this contract (unless for incorporation into flight-qualified or flight-monitoring deliverable end items), the Contractor shall provide to the Contracting Officer, at the earliest possible date, a description of the item sufficiently detailed to enable screening of existing Government inventories.

SECTION G CONTRACT ADMINISTRATION DATA

G.5 ACQUISITION OF CENTRALLY REPORTABLE EQUIPMENT (Cont'd)

For this purpose, the Contractor shall (i) prepare a separate DD Form 1419, DOD Industrial Plant Equipment Requisition, for each item of centrally reportable equipment to be acquired and (ii) forward it through the Contracting Officer to the NASA Equipment Management System (NEMS) Coordinator at the cognizant NASA installation at least 30 days in advance of the date the Contractor intends to acquire or begin fabricating the item. If a certificate of non-availability is not received within that period, the Contractor may proceed to acquire the item, subject to any other applicable provisions of this contract. Instructions for preparing the DD Form 1419 are contained in the NASA FAR Supplement 18-45.7103. The same data may be provided in an alternate format when requesting other than Defense Industrial Plant Equipment Center (DIPEC) controlled items.

Upon receiving the item described on the DD Form 1419 (regardless of whether it is Contractor-acquired or Government-furnished), the Contractor shall prepare and submit a DD Form 1342 or equivalent data, in accordance with NASA FAR Supplement 18-45.505-670.

The equipment acquired for performance on this contract has been authorized by the Contracting Officer by acceptance of equipment costs as negotiated in the estimated cost of this contract. The Principal Investigator (PI) is responsible for determining the necessity of the equipment in the management of the mission within the budgetary constraints under the PI mode of mission management. No additional written approval is necessary for individual equipment acquisitions. Approval is granted with the understanding that the cost of the equipment will not increase the estimated cost of the contract and that equipment costs will be incurred in accordance with the Contractor's purchasing system. This approval does not represent a determination of the acceptability of any subcontract terms or conditions or the allowability of any cost under this contract. It does not relieve the Contractor of any responsibility for contract performance.

(End of clause)

NAS5-97213

SECTION G CONTRACT ADMINISTRATION DATA

**G.6 FINANCIAL REPORTING OF GOVERNMENT-OWNED/CONTRACTOR-HELD
PROPERTY (18-52.245-73) (SEPTEMBER 1996)**

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with 1845.505-14, the instructions on the form, and subpart 1845.71. Subcontractor use of NF 1018 is not required by this clause; however, the contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(b) If administration of this contract has been delegated to the Department of Defense, the original of NASA Form 1018 shall be submitted to the NASA installation Financial Management Officer and three copies shall be sent concurrently through the DOD Property Administrator to the NASA office identified below. If the contract is administered by NASA, the original NF 1018 shall be submitted to the installation Financial Management Officer, and three copies shall be sent concurrently to the following NASA office: GSFC Equipment Management Section, Code 235.1.

(c) The annual reporting period shall be from October 1 of each year to September 30 of the following year. The report shall be submitted in time to be received by October 31. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 31. The Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports when due. Such reserve shall be withheld until the Contracting Officer has determined that the required reports have been received by the Government. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report is required within 30 days after disposition of all property subject to reporting when the contract performance period is complete.

(End of clause)

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.1 WORK BREAKDOWN STRUCTURE (GSFC 52.204-92) (OCT 1988)

The Work Breakdown Structure (WBS), identified as Attachment G to this contract, shall provide the basis for all NASA Form 533 series reporting. Detail reporting requirements and levels are specified in the financial management reporting requirements contained in this contract.

During this contract, the WBS diagram and supporting summary task description shall be updated by the Contractor, as necessary, to reflect negotiations, new work, modifications/changes, changes in work element distribution, and configuration changes. Contractor revisions to the baseline WBS shall be incorporated in the summary task description, shop order listing, and progress reporting within 30 days after WBS revision. Such updating and changes shall be accomplished in accordance with GHB7120.1 "Handbook for Preparation and Implementation of Work Breakdown Structures", and shall be distributed as follows:

<u>No. of Copies</u>	<u>Addressee</u>	<u>Code</u>
1	Contracting Officer	214.3
1	GRACE Mission Manager	408
1	Deputy Project Manager for Resources	408

The Contractor shall be responsible for traceability of subcontractor data supporting its WBS elements. The Contractor may establish with a subcontractor any WBS that permits the prime Contractor to fulfill its WBS requirements and that provides adequate control of the subcontract.

(End of clause)

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.2 MONTHLY AND QUARTERLY FINANCIAL MANAGEMENT REPORTS (GSFC 52.204-95) (OCT 1988)

The Contractor shall submit NASA Financial Management Reports 533M and 533Q, as required by the NASA Contractor Financial Management Reporting clause of this contract. GRACE financial management reports shall be prepared in accordance with the Work Breakdown Structure identified as Attachment G in Section J of this contract. Financial management reporting shall be provided at the total cost/manpower level for WBS Levels III and by the proposed cost elements for WBS Level II.

Copies of the reports shall be submitted to:

<u>Copies</u>	<u>Addressee</u>	<u>Code or Attention</u>
1	Contracting Officer	214.3
1	GRACE Mission Manager	408
4	Deputy Project Manager/Resources	408

(End of clause)

H.3 METHOD OF CONTRACT PERFORMANCE (GSFC 52.211-94) (OCT 1988)

The Contractor agrees to achieve the contract Statement of Work, MDRA and other performance goals in accordance with the method of performance set forth in its final, accepted, technical proposal titled "Gravity Recovery and Climate Experiment (GRACE), dated December 10, 1996, and incorporated herein by reference. If, however, during the performance of this contract, the Contractor believes it necessary to depart from the method of work performance in order to accomplish the contract Statement of Work, MDRA and other performance goals, it shall, within 10 days from day of occurrence of such circumstance, so notify the Contracting Officer in writing including a brief resume reflecting the rationale which

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.3 METHOD OF CONTRACT PERFORMANCE (GSFC 52.211-94) (OCT 1988)
(Cont'd)

has led to its belief that such departure is necessary and a description of the alternate approach to be pursued. In the event the Contractor cannot determine an alternate approach within a 10 day period, it shall so advise the Contracting Officer immediately stating when it anticipates it will be able to furnish a description of an alternate approach.

Except as may otherwise be directed in writing by the Contracting Officer, this notice provision and/or performance by an alternate method shall not be construed to relieve the Contractor from any responsibility for complying with the contract specifications or delivery schedule, and shall not constitute the basis for an equitable adjustment under this contract.

Nothing in this clause shall alter the rights and obligations of the parties elsewhere stated in this contract.

(End of clause)

H.4 INDIRECT COST RATES--PREDETERMINED (GSFC 52.216-102)
(OCT 1988)

In accordance with paragraph (d) of FAR clause 52.216-15, "Predetermined Cost Rates" of this contract, the predetermined rates are in effect on the date of this contract as contained in the written agreement between the Government and the Contractor dated December 17, 1996, which is Attachment H in Section J of this contract.

(End of clause)

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.5 SUBCONTRACTING PLAN AND REPORTS FOR SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS (GSFC 52.219-90) (JUL 1996)

a. Subcontracting Plan (Contractor)

FAR clause 52.219-9, "Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan" is included in Section I of this contract. The agreed to Subcontracting Plan for Small, Small Disadvantaged and Women-Owned Business Concerns required by the clause is included as Attachment C in Section J.

b. Subcontracting Plan (Subcontractors)

In accordance with FAR clause 52.219-9, the Contractor must require that certain subcontractors adopt a plan similar to the Plan agreed to between the Contractor and the Government.

c. Reporting to Contracting Officer (SF 294--Semi-annual and Final)

The Contractor shall prepare and submit Standard Form 294 (Rev. 10-95), "Subcontracting Report for Individual Contracts" in accordance with instructions on the back of the form.

The SF 294 must be submitted to the Contracting Officer on a semi-annual basis. This report must be received no later than April 30 and October 30 each year for the reporting periods ending March 31 and September 30, respectively. A final SF 294 must be submitted after contract completion. The final SF 294 submittal must be received no later than the due date for what would have been the next semi-annual report.

d. Reporting to NASA Headquarters (SF 295--Semi-annual)

The Contractor shall prepare and submit Standard Form 295 (Rev. 10-95), "Summary Subcontract Report" in accordance with the instructions on the back of the form and in accordance with NASA FAR Supplement clause 18-52.219-75, "Small Business and Small Disadvantaged Business Subcontracting Reporting" of this contract.

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

**H.5 SUBCONTRACTING PLAN AND REPORTS FOR SMALL, SMALL DISADVANTAGED
AND WOMEN-OWNED SMALL BUSINESS CONCERNS
(GSFC 52.219-90) (JUL 1996) (Cont'd)**

The SF 295 must be submitted to "NASA, Office of Procurement, Code HC, Washington, D.C. 20546-0001" on a semi-annual basis no later than April 30 and October 30 each year for the reporting periods ending March 31 and September 30, respectively.

e. Subcontractor Reporting

FAR clause 52.219-9 and NASA FAR Supplement clause 18-52.219-75 require that the Contractor ensure that SF 294 and SF 295 reports are submitted by those subcontractors that have been required to adopt a Subcontracting Plan under the terms of the clause. These subcontractor reports must be submitted as required by paragraphs (c) and (d) above. The reports may be submitted through the Contractor or submitted directly. Regardless, the Contractor is responsible for ensuring proper and timely submittal of the required reports.

(End of clause)

H.6 LAUNCH CHANGES

The delivery schedule and/or period of performance of this contract is based upon a spacecraft launch date of July 1 2001. In the event of a Government directed change of the launch date, the Contracting Officer may inform the Contractor, in writing, of the revised launch date, and allow the Contractor to submit a proposal for the effect of this change on the cost, delivery schedule, or other terms of the contract. This may result in an equitable adjustment to the estimated cost, fee(s), if any, and delivery schedule or period of performance. Failure to agree to an adjustment shall be considered as a dispute under the Disputes Clause. However, nothing in this Clause shall excuse the Contractor from proceeding with the contract as extended.

(End of clause)

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.7 RESTRICTIONS ON PRINTING AND DUPLICATING (18-52.208-81)
(AUG 1993)

(a) The Contractor shall reproduce any documentation required by this contract in accordance with the provisions of the Government Printing and Binding Regulations, No. 26, S. Pub 101-9, U.S. Government Printing Office, Washington, DC, 20402, published by the Joint Committee on Printing, U.S. Congress.

(b) The Contractor shall not perform, or procure from any commercial source, any printing in connection with the performance of work under this contract. The term "printing" includes the processes of composition, platemaking, presswork, silk screen processes, binding, microform, and the end items of such processes and equipment.

(c) "Duplicating/copying" is not considered to be printing. It is material produced by duplicating equipment employing the lithographic process and automatic copy-processing or copier-duplicating machines employing electrostatic, thermal, or other copying processes not requiring the use of negatives or metal plates. The Contractor is authorized to duplicate production units provided the requirement does not exceed 5,000 production units of any one page or 25,000 units in the aggregate of multiple pages. Such plates may not exceed a maximum image size of 10-3/4 by 14-1/4 inches. A "production unit" is one sheet, size 8-1/2 by 11 inches (215 x 280 mm), one side only, and one color ink.

(d) This clause does not preclude writing, editing, preparation of manuscript copy, or preparation of related illustrative material as a part of this contract or administrative duplicating/copying (for example, necessary forms and instructional materials used by the Contractor to respond to the terms of the contract).

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.7 RESTRICTIONS ON PRINTING AND DUPLICATING (18-52.208-81)
(AUG 1993) (Cont'd)

(e) Costs associated with printing or duplicating/copying in excess of the limits set forth above are unallowable without prior written approval of the Contracting Officer. If the Contractor has reason to believe that any activity required in fulfillment of the contract will necessitate any printing or substantial duplicating/copying, it immediately shall provide written notice to the Contracting Officer and request approval prior to proceeding with the activity. Requests will be processed by the Contracting Officer in accordance with the provisions of the Government Printing and Binding Regulations and NFS 18-8.802.

(f) The Contractor shall include in each subcontract which may involve a requirement for an printing and/or any duplicating/copying in excess of the limits specified in paragraph (c) of this clause, a provision substantially the same as this clause, including this paragraph (f).

(End of clause)

H.8 SAFETY AND HEALTH (18-52.223-70) (MARCH 1997)

(a) The Contractor shall take all reasonable safety and health measures in performing under this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and health in effect on the date of this contract with the safety and health standards, specifications, reporting requirements, and provisions set forth in the contract Schedule.

(b) The Contractor shall take or cause to be taken any other safety and health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other provision of the contract.

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.8 SAFETY AND HEALTH (18-52.223-70) (MARCH 1997) (cont'd)

(c) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule, or property loss of \$25,000 or more arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. Service Contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule. The Contractor shall investigate all work-related incidents or accidents to the extent necessary to determine their causes and furnish the Contracting Officer a report, in such form as the Contracting Officer may require, of the investigative findings and proposed or completed corrective actions.

(d) (1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. The Contractor shall promptly take and report any necessary corrective action.

(2) If the Contractor fails or refuses to institute prompt corrective action in accordance with subparagraph (d)(1) of this clause, the Contracting Officer may invoke the stop work order clause in this contract or any other remedy available to the Government in the event of such failure or refusal.

(e) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (e) and any applicable Schedule provisions, with appropriate changes of designations of the parties, in subcontracts of every tier that (1) amount to \$1,000,000 or more (unless the Contracting Officer makes a written determination that this is not required), (2) require construction, repair, or alteration in excess of \$25,000, or (3) regardless of dollar amount, involve the use of hazardous materials or operations.

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.8 SAFETY AND HEALTH (18-52.223-70) (MARCH 1997) (cont'd)

(f) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being performed in order to determine the adequacy of the Contractor's safety and health measures under this clause.

(g) As a part of the Contractor's safety plan (and health plan, where applicable) and to the extent required by the Schedule, the Contractor shall furnish a list of all hazardous operations to be performed, including operations indicated in paragraphs (a) and (b) of this clause, and a list of other major or key operations required or planned in the performance of the contract, even though not deemed hazardous by the Contractor. NASA and the Contractor shall jointly decide which operations are to be considered hazardous, with NASA as the final authority. Before hazardous operations commence, the Contractor shall submit for NASA concurrence either or both of the following, as required by the contract Schedule or by the Contracting Officer:

(1) Written hazardous operating procedures for all hazardous operations.

(2) Qualification Standards for personnel involved in hazardous operations.

(End of clause)

H.9 KEY PERSONNEL AND FACILITIES (18-52.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

H.9 KEY PERSONNEL AND FACILITIES (18-52.235-71) (MAR 1989)
(Cont'd)

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided, that the Contracting Officer may ratify in writing the change, and that shall constitute Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities shown below may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

<u>Individual</u>	<u>Title</u>	<u>Organization</u>
Dr. Byron D. Tapley	Principal Investigator	University of Texas at Austin

(End of clause)

H.10 GEOGRAPHIC PARTICIPATION IN THE AEROSPACE PROGRAM (18-52.244-70)
(APR 1985)

(a) It is the policy of the National Aeronautics and Space Administration to advance a broad participation by all geographic regions in filling the scientific, technical, research and development, and other needs of the aerospace program.

(b) The Contractor agrees to use its best efforts to solicit subcontract sources on the broadest feasible geographic basis consistent with efficient contract performance and without impairment of program effectiveness or increase in program cost.

(c) The Contractor further agrees to insert this clause in all subcontracts of \$100,000 and over.

(End of clause)

H.11 OPTION FOR PHASE C/D/E

The Government may unilaterally modify the contract to add the design, development, mission operations and data processing and distribution effort (Phases C/D/E) by the Contracting Officer giving written notice to the Contractor in the form of a modification to the contract within

NAS5-97213

SECTION H SPECIAL CONTRACT REQUIREMENTS

seventeen (17) months from the effective date of the contract. The Contractor must successfully complete the Mission Design and Cost Review (MDCR) package, the MDCR presentation to NASA/GSFC, and any timely corrections required by NASA/GSFC to the MDCR package before NASA may exercise this option for Phase C/D/E. Exercise of this option will add the Phase C/D/E effort described in Clause C.1 and the Phase C/D/E deliverable items and delivery schedule in Clause B.1 at an estimated cost of \$8,932,156.

If the Government exercises the option for Phase C/D/E, then the portions of the following clauses entitled APhase C/D/E shall become effective as of the effective date of the option exercised. The following contract clauses will become effective as of the effective date of the option: B.1 (Phase C/D/E), C.1 (Phase C/D/E), and E.1 (Phase C/D/E).

(End of provision)

H. 12 SPECIAL TERMINATION CONSIDERATIONS

There are two special contract termination considerations for the ESSP Project because these contracts result from Announcements of Opportunity. The first special contract termination consideration, as described in the MDRA, is the budgetary constraints within which this mission must be completed. In accordance with the MDRA, the Contractor must adhere to the Descope Plan in the event that he cannot meet mission requirements within budgetary constraints. In the event the contractor fails to implement the Descope Plan, as provided in the MDRA, the Government reserves the right to exercise a termination for convenience. The second special contract termination consideration is failure to meet or maintain a level of

H. 12 SPECIAL TERMINATION CONSIDERATIONS (cont'd)

anticipated science return at or above the Minimum Science Requirement, as defined in the MDRA. In the event the Contractor fails to meet or maintain a level of anticipated science return at or above the Minimum Science Requirement as defined in the MDRA, the Government reserves the right to exercise a termination for convenience.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.1 LIST OF SECTION I CLAUSES INCORPORATED BY REFERENCE

The following clauses are incorporated by reference in accordance with Federal Acquisition Regulation (FAR) 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988):

52.202-1	DEFINITIONS (OCT 1995)
52.203-3	GRATUITIES (APR 1984)
52.203-5	COVENANT AGAINST CONTINGENT FEES (APR 1984)
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)
52.203-7	ANTI-KICKBACK PROCEDURES (JUL 1995)
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JAN 1990)
52.204-4	PRINTING/COPYING DOUBLE SIDED ON RECYCLED PAPER (JUN 1996)
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)
52.211-5	NEW MATERIAL (MAY 1995)
52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEPT 1990)
52.215-2	AUDIT AND RECORDS--NEGOTIATION (AUG 1996)--ALTERNATE II (JAN 1997)
52.215-22	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (OCT 1995)
52.215-24	SUBCONTRACTOR COST OR PRICING DATA (OCT 1995)
52.216-7	ALLOWABLE COST AND PAYMENT (MAR 1997) NOTE: Delete ASubpart 31.2" and substitute ASubpart 31.3" in paragraph (a)
52.216-11	COST CONTRACT--NO FEE (APR 1984)--ALTERNATE I (APR 1984)
52.216-15	PREDETERMINED INDIRECT COST RATES (AUG 1996)
52.219-8	UTILIZATION OF SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS (OCT 1995)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.1 LIST OF SECTION I CLAUSES INCORPORATED BY REFERENCE (Cont'd)

52.219-9	SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (AUG 1996)
52.219-16	LIQUIDATED DAMAGES--SUBCONTRACTING PLAN (OCT 1995)
52.222-3	CONVICT LABOR (AUG 1996)
52.222-26	EQUAL OPPORTUNITY (APR 1984)
52.222-28	EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS (APR 1984)
52.222-35	AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984)
52.222-36	AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (APR 1984)
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1988)
52.223-2	CLEAN AIR AND WATER (APR 1984)
52.223-6	DRUG FREE WORKPLACE (JAN 1997)
52.223-14	TOXIC CHEMICAL RELEASE REPORTING (OCT 1996)
52.225-3	BUY AMERICAN ACT--SUPPLIES (JAN 1994)
52.225-11	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (OCT 1996)
52.227-1	AUTHORIZATION AND CONSENT (JUL 1995)--ALTERNATE I (APR 1984)
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)
52.227-11	PATENT RIGHTS--RETENTION BY CONTRACTOR (SHORT FORM) (JUN 1989) as modified by NASA FAR Supplement 18-52.227-11
52.227-14	RIGHTS IN DATA--GENERAL (JUN 1987) ALTERNATE IV (JUN 1987)
52.227-16	ADDITIONAL DATA REQUIREMENTS (JUN 1987)
52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS (MAR 1996) [Certificate of Insurance Liability - Self-insurance Program provided by the University of Texas at Austin is hereby approved by the Contracting Officer.]
52.230-5	COST ACCOUNTING STANDARDS--EDUCATIONAL INSTITUTION (APR 1996)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.1 LIST OF SECTION I CLAUSES INCORPORATED BY REFERENCE (cont'd)

52.230-6	ADMINISTRATION OF COST ACCOUNTING STANDARDS (APR 1996)
52.232-22	LIMITATION OF FUNDS (APR 1984) as modified by NASA FAR Supplement 18-32.270(b)
52.232-23	ASSIGNMENT OF CLAIMS (JAN 1986)
52.232-25	PROMPT PAYMENT (MAR 1994) (b)(2), second sentence shall have a 30 day period for any financing payments.
52.232-33	MANDATORY INFORMATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT (AUG 1996)
52.233-1	DISPUTES (OCT 1995)--ALTERNATE I (DEC 1991)
52.233-3	PROTEST AFTER AWARD (AUG 1996)--ALTERNATE I (JUN 1985)
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)
52.242-13	BANKRUPTCY (JUL 1995)
52.243-2	CHANGES--COST-REIMBURSEMENT (AUG 1987)--ALTERNATE V (APR 1984)
52.243-6	CHANGE ORDER ACCOUNTING (APR 1984)
52.244-2	SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS) (FEB 1997)--ALTERNATE I (AUG 1996)
52.244-5	COMPETITION IN SUBCONTRACTING (DEC 1996)
52.245-5	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS)(JAN 1986) (DEVIATION) (JULY 1995)--ALTERNATE I (JUL 1985)--(g)(5) of the clause shall read as follows: "The contractor shall notify the contracting officer upon loss or destruction of, or damage to, Government property provided under this contract, with the exception of low value property for which loss, damage, or destruction is reported at contract termination, completion, or when needed for continued performance. The Contractor shall take all reasonable action to protect the Government property from further damage, separate the damaged and undamaged Government property, put all the affected Government property in the best possible order, and furnish to the Contracting Officer a statement of--" The balance of (g)(5) is unchanged.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.1 LIST OF SECTION I CLAUSES INCORPORATED BY REFERENCE (cont'd)

52.246-24	LIMITATION OF LIABILITY--HIGH VALUE ITEMS (FEB 1997)
52.247-1	COMMERCIAL BILL OF LADING NOTATIONS (APR 1984)
52.247-63	PREFERENCE FOR U.S.-FLAG AIR CARRIERS (JAN 1997)
52.249-5	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (EDUCATIONAL AND OTHER NONPROFIT INSTITUTIONS) (SEP 1996)
18-52.215-84	OMBUDSMAN (OCT 1996) The installation Ombudsman is A.V. Diaz at 301-286-5066. The NASA Ombudsman is Thomas S. Luedtke at 202-358-2090.
18-52.216-89	ASSIGNMENT AND RELEASE FORMS (OCT 1996)

I.2 INTEGRITY OF UNIT PRICES (52.215-26) (FEB 1997)

(a) Any proposal submitted for the negotiation of prices for items of supplies shall distribute costs within contracts on a basis that ensures that unit prices are in proportion to the items' base cost (e.g., manufacturing or acquisition costs). Any method of distributing costs to line items that distorts unit prices shall not be used. For example, distributing costs equally among line items is not acceptable except when there is little or no variation in base cost. Nothing in this paragraph requires submission of cost or pricing data not otherwise required by law or regulation.

(b) The requirement in paragraph (a) of this clause does not apply to any contract or subcontract item of supply for which the unit price is, or is based on, an established catalog or market price for a commercial item sold in substantial quantities to the general public or to an item qualifying for a commercial item exemption to cost or pricing data. A price is based on an established catalog or market price only if the item being purchased is sufficiently similar to the catalog or market priced commercial item to ensure that any difference in prices can be identified and justified without resort to cost analysis.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.2 INTEGRITY OF UNIT PRICES (52.215-26) (FEB 1997) (Cont'd)

(c) The Offeror/Contractor shall also identify those supplies which it will not manufacture or to which it will not contribute significant value when requested by the Contracting Officer. The information shall not be required for commercial items sold in substantial quantities to the general public when the price is, or is based on, established catalog or market prices.

(End of clause)

I.3 ORDER OF PRECEDENCE

In the event of a direct conflict, the Mission Design Requirements Agreement (MDRA) will, unless otherwise stated, take precedence in defining the scope of work.

Any inconsistency in this contract shall be resolved by giving precedence in the following order: (a) the Schedule (excluding the specifications); (b) representations and other instructions; (c) contract clauses; (d) other documents, exhibits, and attachments; and (e) the specifications.

I.4 RIGHTS TO PROPOSAL DATA (52.227-23) (TECHNICAL) (JUN 1987)

Except for data contained on _____, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the technical data contained in the proposal dated December 10, 1996, upon which this contract is based.

(End of Clause)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.5 LIMITATION ON WITHHOLDING OF PAYMENTS (52.232-9) (APR 1984)

If more than one clause or Schedule term of this contract authorizes the temporary withholding of amounts otherwise payable to the Contractor for supplies delivered or services performed, the total of the amounts withheld at any one time shall not exceed the greatest amount that may be withheld under any one clause or Schedule term at that time; provided, that this limitation shall not apply to--

(a) Withholdings pursuant to any clause relating to wages or hours of employees;

(b) Withholdings not specifically provided for by this contract;

(c) The recovery of overpayments; and

(d) Any other withholding for which the Contracting Officer determines that this limitation is inappropriate.

(End of clause)

I.6 NOTIFICATION OF CHANGES (52.243-7) (APR 1984)

(a) Definitions. "Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer. "Specifically authorized representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the

SECTION I CONTRACT CLAUSES

I.6 NOTIFICATION OF CHANGES (52.243-7) (APR 1984) (Cont'd)

Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within 5 calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state--

(1) The date, nature, and circumstances of the conduct regarded as a change;

(2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

(3) The identification of any documents and the substance of any oral communication involved in such conduct;

(4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

(5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including--

(i) What contract line items have been or may be affected by the alleged change,

(ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;

(iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;

(iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

SECTION I CONTRACT CLAUSES

I.6 NOTIFICATION OF CHANGES (52.243-7) (APR 1984) (cont'd)

(6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within 5 calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either--

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

SECTION I CONTRACT CLAUSES

I.6 NOTIFICATION OF CHANGES (52.243-7) (APR 1984) (cont'd)

(e) Equitable adjustments. (1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made--

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above.

NOTE: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of clause)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.7 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS
(52.244-6) (OCT 1995)

(a) Definitions.

Commercial item, as used in this clause, has the meaning contained in the clause at 52.202-1, Definitions.

Subcontract, as used in this clause, includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) Notwithstanding any other clause of this contract, the Contractor is not required to include any FAR provision or clause, other than those listed below to the extent they are applicable and as may be required to establish the reasonableness of prices under Part 15, in a subcontract at any tier for commercial items or commercial components:

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 4212(a));

(3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793); and

(4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.8 CLAUSES INCORPORATED BY REFERENCE (52.252-2) (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

(End of clause)

I.9 COMPUTER GENERATED FORMS (52.253-1) (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

I.10 USE OF RURAL AREA SMALL BUSINESSES (18-52.219-74) (SEP 1990)

(a) Definitions.

"Rural area" means any county with a population of fewer than twenty thousand individuals.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.10 USE OF RURAL AREA SMALL BUSINESSES (18-52.219-74)
(SEP 1990) (cont'd)

"Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding under this contract, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) NASA prime and subcontractors are encouraged to use their best efforts to award subcontracts to small business concerns located in rural areas.

(c) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small business concerns located in rural areas.

(d) The Contractor agrees to insert the provisions of this clause, including this paragraph (d), in all subcontracts hereunder that offer subcontracting possibilities.

(End of clause)

I.11 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING REPORTING (18-52.219-75) (OCT 1995)

(a) The Contractor shall submit the Summary Subcontract Report (Standard Form (SF) 295) semiannually for the reporting periods specified in block 4 of the form. All other instructions for the SF 295 remain in effect.

(b) The Contractor shall include this clause in all subcontracts that include the clause at FAR 52.219-9.

(End of clause)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.12 NASA SMALL AND DISADVANTAGED BUSINESS GOAL
(18-52.219-76) (JUL 1991)

(a) Definitions.

"Historically Black Colleges and Universities," as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2 and listed therein.

"Minority educational institutions," as used in this clause, means institutions meeting the criteria established in 34 CFR 607.2 by the Secretary of Education.

"Small disadvantaged business concern," as used in this clause, means a small business concern owned or controlled by individuals who are both socially and economically disadvantaged (within the meaning of section 8(a)(5) and (6) of the Small Business Act [15 U.S.C. 637(a)(5) and (6)]). For purposes of this clause, socially and economically disadvantaged individuals shall be deemed to include women.

(b) The NASA Administrator is required to ensure, to the fullest extent possible, that at least 8% of the total value of prime and subcontracts awarded in support of authorized programs, including the space station by the time operational status is obtained, is made available to small business concerns or other organizations owned or controlled by socially and economically disadvantaged individuals (including women), Historically Black Colleges and Universities, and minority educational institutions.

(c) The contractor hereby agrees to assist NASA in achieving this goal by using its best efforts to award subcontracts to small disadvantaged business concerns, Historically Black Colleges and Universities, and minority educational institutions, as defined in this clause, to the fullest extent consistent with contract performance.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.12 NASA SMALL AND DISADVANTAGED BUSINESS GOAL
(18-52.219-76) (JUL 1991) (Cont'd)

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small disadvantaged business concerns, Historically Black Colleges and Universities, and minority educational institutions.

(End of clause)

NAS5-97213

SECTION I CONTRACT CLAUSES

I.13 MINIMUM INSURANCE COVERAGE - Applicable to the University of Texas at Austin

The University of Texas at Austin shall maintain its self-insurance program as stipulated by the State of Texas.

(End of clause)

I.14 CENTER FOR AEROSPACE INFORMATION (18-52.235-70) (NOV 1992)

(a) The Contractor should register with and avail itself of the services provided by the NASA Center for AeroSpace Information (CASI) for the conduct of research or research and development required under this contract. CASI provides a variety of services and products as a central NASA repository of research information which may enhance contract performance. The address is set out in paragraph (d) of this clause.

(b) Should the CASI information or service requested by the Contractor be unavailable or not in the exact form necessary by the Contractor, neither CASI nor NASA is obligated to search for or change the format of the information. A failure to furnish information shall not entitle the Contractor to an equitable adjustment under the terms and conditions of this contract.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.14 CENTER FOR AEROSPACE INFORMATION (18-52.235-70) (NOV 1992)
(Cont'd)

(c) When the contract otherwise requires the submission of monthly progress, quarterly progress, or final reports, as defined at 18- 27.406(b), the last page of such reports shall be a completed Standard Form (SF) 298, Report Documentation Page.

(d) When the contract requires the delivery of reports or data to CASI, a reproducible copy and a printed or reproduced copy of such reports or data shall be concurrently submitted to:

Center for AeroSpace Information (CASI)
Attn: Accessioning Department
800 Elkridge Landing Road
Linthicum Heights, MD 21090-2934

(End of clause)

I.15 TITLE TO EQUIPMENT (18-52.245-75) (MAR 1989)

(a) In accordance with the FAR 52.245 Government Property clause of this contract, title to equipment and other tangible personal property acquired by the Contractor with funds provided for conducting research under this contract and having an acquisition cost less than \$5000 shall vest in the Contractor upon acquisition, provided that the Contractor has complied with the requirements of the FAR 52.245 Government Property clause.

(b) Upon completion or termination of this contract, the Contractor shall submit to the Contracting Officer a list of all equipment with an acquisition cost of \$5000 or more acquired under the contract during the contract period. The list shall include a description, manufacturer and model number, date acquired, cost, and condition information, and shall be submitted within 30 calendar days after completion or termination of the contract, in accordance with Federal Acquisition Regulation subsection 45.606-5.

NAS5-97213

SECTION I CONTRACT CLAUSES

I.15 TITLE TO EQUIPMENT (18-52.245-75) (MAR 1989) (Cont'd)

(c) Title to the property specified in paragraph (b) above vests in the Contractor, but the Government retains the right to direct transfer of title to property specified in paragraph (b) above to the Government or to a third party within 180 calendar days after completion or termination of the contract. Such transfer shall not be the basis for any claim by the Contractor.

(d) Title to all Government-furnished property remains vested with the Government (see the FAR 52.245 Government Property clause).

(e) Title to the contractor-acquired property listed below shall vest with the Government.

"None"

(End of clause)

NAS5-97213

**SECTION J LIST OF DOCUMENTS, EXHIBITS, AND OTHER
ATTACHMENTS**

J.1 LIST OF ATTACHMENTS (GSFC 52.210-101) (OCT 1988) Recovery and Climate Experiment (GRACE), dated December 10, 1996, and incorporated herein by reference. If, however, during the performance of this contract, the Contractor believes it necessary to depart from the method of work performance.

The following attachments constitute part of this contract:

<u>Attachment</u>	<u>Description</u>	<u>Date</u>	<u>No. of Pages</u>
A	Statement of Work for Phase B	July 1997	10
B	Statement of Work for Phases C/D/E	July 1997	16
C	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan	July 1997	5
D	Mission Definition and Requirements Agreement	July 1997	11
E	Science and Mission Requirements Document(s)*	_____	_____
F	Education and Public Outreach Plan*	_____	_____
G	Work Breakdown Structure	July 1997	1
H	Predetermined Cost Rates Agreement	Dec. 17, 1996	6

*Deliverables under Phase B which will be attachments for Phase C/D/E